

REMARKS

Claim 1 is amended to include the limitations of claim 2 for purposes of expediting prosecution. Claim 13 is amended to include limitations similar to those added to claim 1. No new search should be required since the amendment does not change the scope of the originally filed claims.

Claim 7 is amended to correct a typographical error as pointed out in the objection to claim 7.

Claims 1, 3-12 and 19 are pending in this application. Reconsideration and allowance of the application are respectfully requested.

Claims 1-4, 8, 12 and 19 are understood to be novel under 35 USC §102(e) over "Mahant-Shetti" (U.S. Patent No. 7,068,617 to Mahant-Shetti et al.) The rejection is respectfully traversed because the Office Action does not show that all the limitations of the claims are taught by Mahant-Shetti.

Claim 1 as amended recites, "wherein the controller is further configured to initialize the code generators with respective first seeds and reset each code generator with respective second seeds[.]" The cited portion of Mahant-Shetti neither teaches nor suggests these limitations. Mahant-Shetti teaches:

In another aspect of the present invention, the code generator operates on a chip clock such that the code word is clocked by the chip clock. The chip clock changes from one logic state to a second logic state with the multiply/accumulation device operating during the one logic state. The multiply/accumulation device further includes a blanking device for blanking at least one of the leading or lagging edges of the chip clock at one logic state for a predetermined blanking duration. During this blanking duration, the operation of the multiply/accumulation device is inhibited so as to prevent accumulation of information therefrom. (col. 3, lines 1-11)

Mahant-Shetti further teaches:

Referring now to FIG. 8, there is illustrated a timing diagram for the operation described herein. A chip clock is provided which is synchronized to the composite signal that is transmitted. This is illustrated as an unfiltered signal. As noted hereinabove, a smoothing filter is then utilized to result in a filtered signal which basically smooths the transition such that a smaller bandwidth is required. As will be described hereinbelow, to remove the need for synchronizing the sampling operation to the center of a given chip clock and then performing the conventional decode operation, the transition region is neglected, with the remaining waveform being utilized for the accumulation operation of the present embodiment. Therefore, as will be described in more detail hereinbelow, the sum of the products is carried out for only a fraction of the time, compared to a conventional operation with no accumulation performed for the beginning and the end of

the chip period. This is illustrated in FIG. 9 for a single chip period wherein there is defined a region 70 over which the sum of the products is performed, an accumulation operation, with the initial portion of the chip period and the final portion of the chip period represented by blanking regions 72 and 74, respectively, over which no accumulation is performed. These are referred to as "blanking regions."

By performing the blanking operation, this effectively provides the "matched filter" function of a normal CDMA decoder operating in a digital domain. Also, this is achieved in the analog domain with the present embodiment rather than in the digital domain. In general, the initial blanking will increase the signal-to-noise ratio dramatically, with additional blanking merely decreasing the overall signal level. Therefore, there is a practical limit to how much blanking is required or necessary to achieve an adequate signal-to-noise ratio without unnecessarily reducing the signal level. (col. 6, line 57 – col. 7, line 24)

From these teachings it is clear that Mahant-Shetti's blanking simply stops the accumulation for certain portions of a chip clock period. There is no apparent relevance to the claimed resetting of each code generator with respective second seeds. Furthermore, the ACC line in Mahant-Shetti's FIG. 8 apparently shows that the codes are maintained and not reset. If the rejection is maintained, Applicants respectfully request an explanation of how Mahant-Shetti's teachings are construed to teach the claim limitations.

Also in claim 1, the recited interconnect interface is "arranged to combine encoded data from the encoders into an output signal and transmit the output signal..." These limitations do not appear to be taught by Mahant-Shetti. Mahant-Shetti teaches a receiver (Title, Abstract). Mahant-Shetti's FIG. 5 shows multiple encoders transmitting over separate antennae to the single antenna 26 of the receiver 25. Therefore, Mahant-Shetti does not suggest the claimed "interconnect interface" that "combine[s] encoded data from the encoders into an output signal and transmit[s] the output signal..."

Therefore, the Office Action does not show that Mahant-Shetti teaches all the limitations of claim 1.

Claims 3-4 and 8 depend from claim 1, and independent claims 12 and 19 include limitations similar to those discussed above for claim 1. Thus, the Office Action does not show that Mahant-Shetti teaches the limitations of these claims for at least the reasons set forth above.

The rejection of claims 1-4, 8, 12, and 19 should be withdrawn because the Office Action does not show that Mahant-Shetti anticipates all the limitations of these claims.

Claims 5-7 and 9 are understood to be patentable under 35 USC §103(a) over Mahant-Shetti in view of “Kim” (U.S. Patent Pub. 2005/0041972 to Kim et al.). The rejection is respectfully traversed because the Office Action does not show that all the limitations are suggested by the combination and does not provide a proper motivation for modifying the teachings of Mahant-Shetti with teachings of Kim.

Claims 5-7 and 9 depend from claim 1, and Kim does not appear to suggest the limitations of claim 1 that are not taught by Mahant-Shetti. Thus, the Office Action does not show that the Mahant-Shetti-Kim combination suggests all the limitations of claims 5-7 and 9 for at least the reasons set forth above. Furthermore, the asserted motivation for modifying Mahant-Shetti with teachings of Kim is unsupported by evidence. Therefore, a *prima facie* case of obviousness has not been established, and the rejection of claims 5-7 and 9 should be withdrawn.

Claim 10 is understood to be patentable under 35 USC §103(a) over Mahant-Shetti in view of “Farwell” (U.S. Patent No. 5,184,347 to Farwell et al.). The rejection is respectfully traversed because the Office Action does not show that all the limitations are suggested by the combination and does not provide a proper motivation for modifying the teachings of Mahant-Shetti with teachings of Farwell.

Claim 10 depends from claim 1, and Farwell does not appear to suggest the limitations of claim 1 that are not taught by Mahant-Shetti. Thus, the Office Action does not show that the Mahant-Shetti-Farwell combination suggests all the limitations of claim 10 for at least the reasons set forth above. Furthermore, the asserted motivation for modifying Mahant-Shetti with teachings of Farwell is unsupported by evidence. Therefore, a *prima facie* case of obviousness has not been established, and the rejection of claim 10 should be withdrawn.

Claim 11 is understood to be patentable under 35 USC §103(a) over Mahant-Shetti in view of Examiner’s official notice. The rejection is respectfully traversed because the Office Action does not show that all the limitations are suggested by the combination and does not provide a proper motivation for modifying the teachings of Mahant-Shetti with Examiner’s official notice.

Applicants traverse the Examiner’s official notice. The official notice does not provide specific factual findings predicated on sound technical and scientific reasoning

to support his or her conclusion of common knowledge. The official notice simply states the function of the claimed second cipher translation table without providing any factual findings outside the claim language. Therefore, Applicants respectfully request the Examiner to produce documentary prior art evidence so that the matter may be further addressed if necessary.

The rejection of claim 11 should be withdrawn because the Office Action does not establish a *prima facie* case of obviousness.

CONCLUSION

Reconsideration and a notice of allowance are respectfully requested in view of the Remarks presented above. If the Examiner has any questions or concerns, a telephone call to the undersigned is invited.

Respectfully submitted,

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